# HORIZON

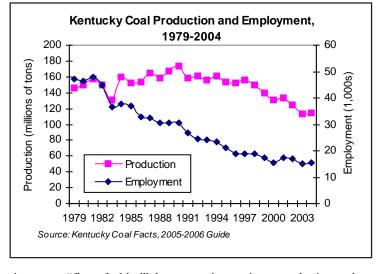
trends and issues to watch, ideas and innovations to use

# MIT team urges national policy to advance "clean coal" technology

Coal can continue to meet future energy needs even as we reduce carbon emissions if we advance new technologies, according to a recent report from the Massachusetts Institute of Technology (MIT). The multidisciplinary team of MIT researchers suggests that carbon capture and sequestration (CCS) technology could enable the United States to significantly

reduce CO<sub>2</sub> emissions while meeting energy needs. In doing so, the researchers conclude, the nation could move away from reliance on unstable foreign sources of oil, tap sources of coal in stable countries, bridge the transition to new carbon-free energy technologies, and address the problem of global warming. Indeed, the authors conclude, coal may be one of the most practical ways to reduce and eventually eliminate our dependence on foreign sources of oil.

Global warming, the report's authors concur, will be stabilized only through global adherence to CO<sub>2</sub> emission constraints. To achieve that goal, the United States must take the lead if emerging economies are expected to follow. The study's authors advocate U.S. assumption of global leadership on CCS technology through policy actions, including the near-term imposition of "a significant charge on carbon



emissions" to make new technologies more attractive, assistance to "first of a kind" demonstration projects employing carbon capture technologies, and the elimination of "perverse incentives" that permit the development of new coal plants without CCS technology. They also recommend investment in large-scale CCS demonstration projects to determine the technical, economic, and environmental feasibility of these CCS technologies.

**Potential Implications for Kentucky:** The growing concern over global warming, rising energy demands, and political instability in the Middle East virtually ensure that pressure will continue to build for the development and use of clean coal technology. Clean coal technology has long held the promise of economic bounty for Kentucky, a steady stream of revenue from coal severance taxes and good-paying jobs in otherwise depressed regions. Kentucky produces around 10 percent of the nation's coal, ranking third behind Wyoming and West Virginia. Yet, only 15,500 mining jobs remained in 2004, down from nearly 50,000 in the late 1970s, according to the Kentucky Office of Energy Policy, though today's miners produce more than double the coal their 1970s counterparts did.

### **Economists tout value of reducing dropouts**

Wide-scale adoption of effective pre-K-12 educational interventions would yield \$45 billion in U.S. gains from increased tax revenues and reduced social costs over the lifetime of high school graduates, twice the cost of implementing them, according to a recent study by a team of economists.<sup>2</sup> The new report is the first to use economic analytical techniques to measure the cost benefits of specific educational programs that have documented success in increasing high school graduation rates. If average U.S. spending rose to \$82,000 for every student who became a high school graduate due to these interventions, the economy would benefit during each of those students' lifetimes from \$209,000 in additional tax revenues and \$70,000 in lower costs for public health, social welfare, and corrections, according to the study. If the interventions succeeded in cutting the high school dropout rate in half, a single cohort of students who graduated because of the interventions would provide \$45 billion for government treasuries in the form of tax revenue or reduced demand for services over the course of their adult lives. The study endorses two preschool programs, the reduction of class sizes in elementary grades, and one high school

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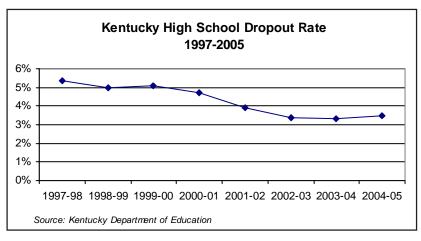
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intervention. It also predicts that an acrossthe-board 10 percent increase in teacher salaries would attract "a larger pool of talented people" into the teaching profession, and ultimately produce more high school graduates as a result. However, one economist who reviewed the research concluded that the study underestimated the costs of the interventions needed to ensure that those students actually succeed in school and questioned the efficacy of smaller class sizes.

**Potential Implications for Kentucky:** While the high school dropout rate in Kentucky has been steadily decreasing, the Kentucky Department of Education Dropout



Prevention Resource Guide notes that, "roughly ten thousand students yearly leave high school before obtaining a high school diploma." Clearly, reducing the number of high school dropouts is vitally important to Kentucky's future, but the problem demands immediate investment that will not likely return benefits for years to come. Many, if not most, of Kentucky's serious problems can be traced to an undereducated and, thus, disproportionately poor population. Reducing high school dropouts *and* increasing our college-educated population will most certainly yield enormous, virtually incalculable benefits for our state, from lower social costs to higher incomes.

## Universal health care tops public's domestic priorities

Following only the war in Iraq, health care issues have become the dominant public policy concern,<sup>3</sup> according to a recent Gallup poll which shows that 27 percent—the highest level in more than a year—say health care should be the top priority for the president and Congress. A majority of Americans say the federal government should guarantee health insurance to every American, especially children, and are willing to pay higher taxes to do it.<sup>4</sup> According to a February poll, 60 percent of U.S. adults said they would be willing to pay higher taxes with half saying they would pay as much as \$500 more a year in higher taxes to expand health insurance access.<sup>5</sup>

The State Children's Health Insurance Program, SCHIP, created in 1997 as a 10-year, \$40 billion partnership between states and the federal government, has been touted as both a model for what broader health care initiatives might look like<sup>6</sup> and criticized as an example of a "band-aid" health care solution. Under SCHIP, the states and the federal government share the cost of coverage, but states have considerable flexibility in creating their own plans, allowing all 50 states and the District of Columbia to be largely free to experiment with ways to extend care to children and improve their health, while attempting to contain costs.

The health consequences of a lack of health insurance are prodding a few states to move toward universal coverage.<sup>8,9</sup> While some states have adopted plans for universal health coverage, others are focusing mainly on cost control. California, Massachusetts, and Pennsylvania are each advancing initiatives to cover the uninsured. In general, the states are working within the health system, tapping businesses, hospitals, insurers, and workers to pay for expanded health care. Popular proposals include guaranteeing medical coverage to all children, subsidizing medical insurance at small businesses, and providing tax incentives for businesses and individuals to make coverage more affordable.

**Potential Implications for Kentucky:** Affordable, universally accessible, high-quality health care with an emphasis on prevention has long been one of the most important issues for Kentuckians, based on a biennial survey conducted by the Kentucky Long-Term Policy Research Center. Yet, the experience of Maine, a state similar to Kentucky in many respects, reveals the challenges in covering the uninsured. Maine aspired to insure 31,000 of the uninsured by 2005 and all 130,000 of the uninsured by 2009. However, only 18,800 have signed up for the state coverage to date, partly due to its cost. <sup>10</sup> Clearly, no answer to the access issue will likely come without long-overdue attention to how much health care costs in the United States. **A** 

### Sources

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- <sup>3</sup> Joseph Carroll, galluppoll.com, February 28, 2007.
- <sup>4</sup> Robin Toner and Janet Elder, The New York Times, March 2, 2007.
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- <sup>6</sup> Jonathan Walters, Governing, March 2007.
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- <sup>8</sup> Lisa Rein, washingtonpost.com, January 31, 2007.
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- <sup>10</sup> Pam Belluck, The New York Times, April 30, 2007.